

**Test values for alignment of shock absorbers at front axle**

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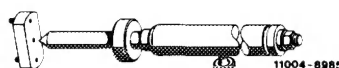
Control arm position (for checking in design position)	Permissible deviation of alignment
+ 25 ± 5 mm	5 mm

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**Special tools**

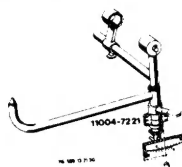
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Testing and adjusting spindle for alignment  
of front and rear shock absorbers

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Measuring instrument for control arm  
position of front axle

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**Note**

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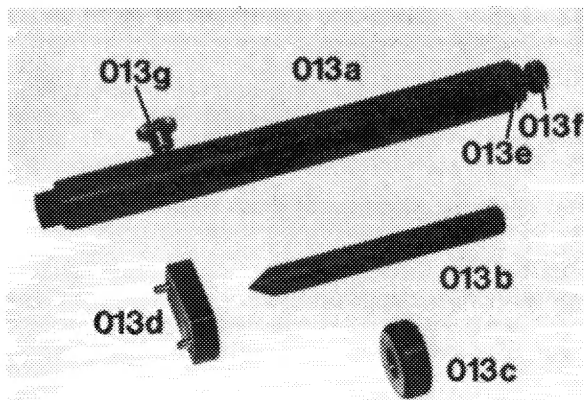
Excessive deviations in alignment of shock absorber suspension points may lead to increased wear in shock absorber and subsequent rumbling noises and leaks of piston rod seal. In extreme cases, the driving comfort may be impaired (hardening of suspension by increased friction).

A checkup and, if required, a correction of the shock absorber alignment should therefore be performed following pertinent adjustment and reconditioning jobs of respective frame members at front end. The shock absorbers will be checked for alignment with the axle installed in design position of the vehicle and in relation to camber and caster set to nominal values.

**Attention!**

When removing gas pressure shock absorbers with separating piston or piston rod located on top of jacked up vehicle with axle half relieved, make sure that the piston rod is not rotating along while loosening upper suspension. Since in this condition the deflection stop in shock absorber rests against operating piston, the fastening of operating piston to piston rod may become loose. The gas pressure would then result in a sudden extension of piston rod and the oil in shock absorber would flow out (danger).

- 013 Testing and adjusting tool
- 013a Adjusting bolt
- 013b Testing and adjusting pin
- 013c Test sleeve
- 013d Test plate
- 013e Washer
- 013f Hex nut
- 013g Tightening screw

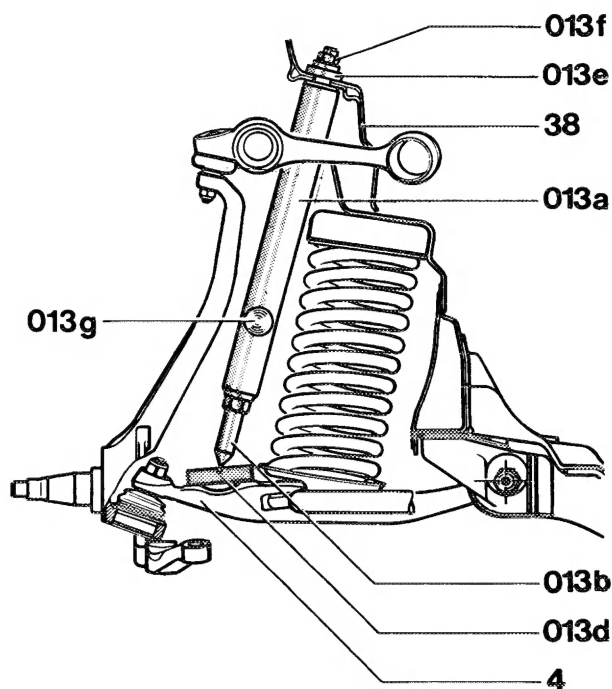


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### Test procedure

**Note:** Camber and caster of front wheels should be set to nominal values.

- 1 Jack-up vehicle at the front, remove front wheels.
- 2 Remove front shock absorbers (32-100).
- 3 Fasten testing and straightening tool on upper fastening point of shock absorber, while holding testing and adjusting bolt (013b) in raised condition by means of clamping screw (013g). Insert test plate (013d) at lower control arm.



- 4 Lower control arm
- 013 Testing and adjusting tool
- 013a Adjusting bolt
- 013b Testing and adjusting bolt
- 013d Test plate
- 013e Washer
- 013f Hex nut
- 013g Clamping screw
- 38 Front end

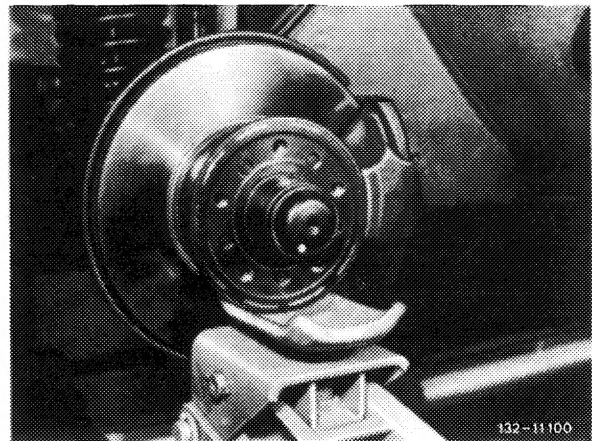
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4 Insert spring tensioner (32–200 or 32–205) for front spring and tension spring until control arm is relieved.

5 Simultaneously, lift front axle half with workshop vehicle jack at front wheel hub until the specified control arm position is attained.

**Attention!**

The body should not lift from supporting jacks!



6 Check alignment with testing and adjusting pin (013b) and correct, if required. If pin points toward the center of test plate, a 0 mm deviation is indicated.

